

# JOB SAFETY ANALYSIS

**NO JOB IS SO IMPORTANT  
AND NO SERVICE IS SO URGENT  
THAT WE CANNOT TAKE TIME  
TO PERFORM OUR WORK SAFELY.**







Effective Date: May 15, 2002  
Revision Date:  
Revision #: 1



<b>Job:</b> Icky Pik	<b>Job:</b> Telephone Technician	<b>Effective Date Completed:</b> 04/01/02
<b>Task:</b> Use Of Icky Pic In A Manhole		<b>Department:</b> Construction/I&R
<b>Analyzed/Revised by:</b> Jim La Porte/Wade Darnell		
<b>Reviewed by:</b>		
<b>Signed by:</b>		
SUPERVISOR (Name, Date):		_____
EMPLOYEE (Name, Date):		_____
OTHER (Name, Date):		_____

**REQUIRED/RECOMMENDED PPE: Protective Goggles, Hard Hat, Chemical Resistant Gloves, Full Body Outer Garment and Work Boots .**



Sequence of Task Steps	Hazards	Controls
<b>Work Area Protection Set Up</b>	Vehicle Traffic Accident/ Pedestrian Traffic Accident 	<ul style="list-style-type: none"> <li>-Traffic Cones</li> <li>- Position Vehicle of Truck Off Road If Possible (Set Parking Brake/<b>Chocks</b>)</li> <li>- Position Truck As Blocker If Possible</li> <li>- Early Warning Traffic Warning Sign/Trailer</li> <li>- Reflective Vest</li> <li>- Warning Beacons On Vehicle</li> <li>- Hard Hat</li> <li>- Work Boots</li> </ul>  <p>Refer To Work-Safe Job Aid On Manhole Entry</p>

<p><b>Assess Work Area</b></p>	<p>Trip, Slip &amp; Fall</p>	<ul style="list-style-type: none"> <li>- Assess Work Area For Trip, Slip and Fall Hazards Such As Fallen Branches, Debris On Ground, Exposed Nails. Remove or Highlight With Traffic Cone. Refer To Job Aid On Fall Prevention.</li> </ul>
<p><b>Sample Around Manhole Prior To Removing Manhole Lid</b></p>	<ul style="list-style-type: none"> <li>-Inhalation of Harmful Gases/Vapors</li> <li>-Fire/Explosion</li> <li>- Oxygen Deficiency</li> </ul>	<ul style="list-style-type: none"> <li>- Sample Ventilation Openings Or Hook Holes In Manhole Lid For Combustible Gases/Vapors. Assure Gas Meter Is Functioning Properly and Calibrated According To Manufacturer Specifications.</li> </ul>
<p><b>Remove Manhole Lid</b></p>	<p>Back Injury</p> 	<ul style="list-style-type: none"> <li>-Use Proper Lifting Techniques.</li> <li>-Use <b>(Leveraged – Specify)</b> Manhole Hook Or Two-Person Technique For Removing A Manhole Lid.</li> </ul> 

<p><b>Test Set Up Manhole Guard/Insert Manhole Ring</b></p>	<p>Trip/Fall Into Open Manhole Back Injury</p> 	<ul style="list-style-type: none"> <li>- Set Up Manhole Guard Facing On-Coming Traffic.</li> <li>- Insert Manhole Ring</li> <li>- Use Proper Lifting Techniques When Handling Manhole Guard/Manhole Ring</li> </ul>
<p><b>Test Manhole Water (If Applicable)</b></p>	<p>Discharge Contaminated Water Into Sanitary Sewer System <b>or damage to property.</b></p>	<p>-Sample Water In Manhole With Water Sampling Kit For Contaminants Such As Oil Sheen/Sediments. Complete Water Testing Log <b>as required.</b></p>
<p><b>Pump Water Out Of Manhole To Safe Location.</b></p>	<p>-Discharge Water Into Active Roadway Or Pedestrian Walkway <b>or damage to property.</b></p> 	<p>-Discharge Water To Safe Location. Avoid Discharging Water Directly Onto Surfaces That Would Directly Impact Vehicle Or Pedestrian Traffic.</p> 

**Ventilate Manhole**

- Inhalation
- Fire Explosion



- Ventilate Manhole As Per Manhole Job Aid.
- Make Sure Hose **And Blower** Are In Good Working Condition.
- Consider Migration Of Gases From **Compressor (Power Unit/Vehicle)** or Near-By Sources And The Wind Direction Into **Compressor** Air In Take.

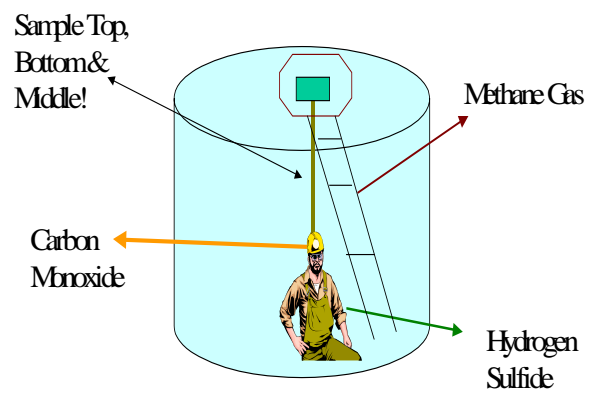
**Refer To Work-Safe Job Aid On Manhole Entry.**

**Monitor/Ventilate Manhole**

- Inhalation of Harmful Gases/Vapors
- Fire/Explosion
- Oxygen Deficiency






**Atmospheric Testing**





**Sample Before You Open The Manhole Cover!**


- Perform Atmospheric Tests of Manhole With A Properly Calibrated Meter At The Top, Middle And Bottom Of The Manhole. If Test Indicates The Environment Is Safe To Enter, Place Meter At Working Level In Manhole, Then Periodically Sample The Top, Bottom, **Corners, Ducts,** and Middle Of The Space Throughout The Course Of The Job.


**Refer To Work-Safe Job Aid On Manhole Entry.**

<b>Identify Cable in Manhole?</b>	Disruption Of Phone Service	-Compare Identity Of Cable With That Of The Engineering Print(s).
<b>Identify Racking Site For Cable And Splice Case</b>	-Awkward Working Position/Posture	-Identify Location -Temporarily Attach Cable For Measurement. -Determine Splice Case Size. -Measure Length Of Splicing And Mark On Cable. -Remove Temporary Rack Attachments. <b>Proper Lifting?</b> -Wear Hard Hat For Head Protection 
<b>Prepare Solvent Removal Kit</b>	Eye & Skin Irritant Slip, Trip & Fall 	-Read Material Safety Data Sheet And Use Instructions. -Inventory Kit For Completeness. -Note: Lower/Raise Supplies Up/Down Into Manhole To Avoid Carrying Supplies While Navigating A Ladder. - Use Three Points Of Contact When Ascending/Descending A Ladder. - Make Sure Manhole Ladder Is Secure. - Make Sure Work Boots Have Been Wiped Free Of Mud, Grease, Oil Or Other Potential Slip Hazards.
<b>Spread Drop Cloth (Slicker)</b>	Slip, Tip and Fall	- Spread Drop Cloth To Maximize Containment Of Work Area. 
<b>Set Up Secondary Containment</b>	-Slip, Trip and Fall -Accidental Spill	- Set Up A Secondary Containment Device Such As Bucket Or Tub To Catch Any Cleaning Solution That May Be Lost During The Cleaning Process.

<p><b>Make Sheath Opening</b></p>	<ul style="list-style-type: none"> <li>- Cut By</li> <li>- Eye Injury</li> </ul>	<ul style="list-style-type: none"> <li>- Assure That Opening Size For Splice Case Is Correct.</li> <li>- Cut Away From The Body</li> <li>- Make Sure There Is Enough Light</li> <li>- Make Sure Cutting Blade Is Sharp And That Handle Is Free Of Oil/Grease.</li> <li>- Wear Cut Resistant Gloves</li> <li>- Wear Eye Protection – Safe Glasses With Side Shields. Pre-Inspect Prior To Use.</li> <li>- Take Care To Cut Sheath And Not The Turn Plate To Eliminate The Possibility Of Damaging The Pairs.</li> </ul>
<p><b>Secure Ends</b></p>	<ul style="list-style-type: none"> <li>- Loss Of Integrity Of Pair</li> <li>- Cut</li> </ul>	<ul style="list-style-type: none"> <li>- Use Proper Tie To Ensure Integrity Of Pair During Cleaning Process.</li> <li>- Use Tape To Cover End Of Cut Off Tie Wrap So It Will Not Puncture The Bag.</li> <li>- Cut Off Any Burrs At Both Ends Of The Cut Sheath.</li> <li>- Wear Gloves When Handling Cut End To Avoid Cuts To Hand.</li> </ul>
<p><b>Attach Mylar Bag</b></p>	<ul style="list-style-type: none"> <li>- Accidental Spill</li> </ul>	<ul style="list-style-type: none"> <li>- Pre-Inspect Mylar Bag For Rips Or Tears.</li> <li>- Affix Mylar Bag Over End Of Copper Cable To Prevent Copper Cable Wires From Rupturing The Solvent Packet.</li> <li>- Secure With Tie Wrap Not Tape The Tape May Be Compromised By The Cleaning Solution.</li> </ul> <p><b>Note: Anyone Engaged In Process Of Handling Or Using The Cleaning Solution Must Be Wearing Goggles, Tyvek Coveralls And Gloves To Prevent Eye/Skin Contact. In Addition, Additional Clean Up Supplies Such As Rags And Extra Drop Cloths Must Be Immediately Available. These Can Be Used For Spill Clean-Up Or Additional Protection. The Cleaning Solution Itself Must Always Be Contained In A Secondary Containment Device Such As A Bucket Or Pail To Prevent Spillage. Walking Working Surfaces And Boots Must Be Kept</b></p>

		<p><b>Free Of The Cleaning Solution. Spilled Cleaning Solution Must Be Cleaned Off Boots Or Surfaces To Avoid Slip And Fall Hazards.</b></p> 
<p><b>Prepare Cleaning Solution Bag By Measuring Bag To Correct Length</b></p>	<p>-Accidental Spill</p>	<p>- Keep About 6 Inches Worth Of Space Between The Bagged Cable And Bagged Bottom Of Cleaning Solution Bag.</p>
<p><b>Tape Solvent Bag Sleeve To Cable</b></p>	<p>-Accidental Spill - Inhalation</p> 	<p>Place Sleeve End Approximately 8-10 Inches Above The Splice Opening On The Cable Sleeve. Wrap With Electrical Tape And Twist To Make A Cord As Additional Protection From Leakage. Pre-Inspect Sleeve For Rips Or Tears Prior To Use.</p> <p>Assure Mechanical Ventilation Is Properly Placed In Space To Maximize The Circulation Of Air Through The Space.</p>

<b>Poly Wrap Solvent Bag</b>	-Accidental Spill	- Poly Wrap From Supply End Of Solvent Bag To Ensure Equal Distribution of Cleaning Solution To Clean Cable Pairs.
<b>Massage Poly Wrapped Cable Pairs To Mix In Cleaning Solution</b>	-Accidental Spill - Strain/Sprain - Skin/ Eye Contact - Award Posture/Work Position	- Ensure Cleaning Solution Is In Secondary Containment Device Such As A Bucket Or Pail. - Wear Gloves and Goggles When Using Cleaning Solution. - Wear Protective Outer Clothing (i.e. Tyvek Suit). - Set Up Work Station To Avoid Awkward Posture/Work Position
<b>Let Cleaning Solution Stand Up To Thirty Minutes (Clarify)</b>	-Accidental Spill	- Ensure Cleaning Solution Is In Secondary Containment Device Such As A Bucket Or Pail.
<b>Carefully Unwrap Cable</b>	-Accidental Spill -Eye/Skin Contact -Slip, Trip And Fall	- Ensure Cleaning Solution Is In Secondary Containment Device Such As A Bucket Or Pail. - Wear Gloves and Goggles When Using Cleaning Solution. - Wear Protective Gloves - Wear Protective Outer Clothing (i.e. Tyvek Suit). - Place All Discarded Materials In Sealed Bag And Label Bag.
<b>Wipe Down Cable</b>	-Accidental Spill -Eye/Skin Contact -Slip, Trip And Fall 	- Ensure When Wiping Down Cable Cleaning Solution Is Confined To Secondary Containment Device Such As A Bucket Or Pail. - Wear Gloves and Goggles When Using Wiping Down Cable Cleaning Solution. - Wear Protective Gloves When Wiping Down Cable - Wear Protective Outer Clothing (i.e. Tyvek Suit). -Wear Chemical Protective Goggles - Place All Discarded Materials In Sealed Bag And Label Bag.

<p><b>Repeat Sequence If More Gel Removal Is Required</b></p>	<ul style="list-style-type: none"> <li>-Accidental Spill</li> <li>-Eye/Skin Contact</li> <li>-Slip, Trip And Fall</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure When Wiping Down Cable Cleaning Solution Is Confined To Secondary Containment Device Such As A Bucket Or Pail.</li> <li>- Wear Gloves and Goggles When Using Wiping Down Cable Cleaning Solution.</li> <li>- Wear Protective Gloves When Wiping Down Cable</li> <li>-Wear Chemical Protective Goggles</li> <li>- Wear Protective Outer Clothing (i.e. Tyvek Suit).</li> <li>- Place All Discarded Materials In Sealed Bag And Label Bag.</li> </ul>
<p><b>Collect Materials And Clean Up Work Area</b></p>	<ul style="list-style-type: none"> <li>-Accidental Spill</li> <li>-Eye/Skin Contact</li> <li>-Slip, Trip And Fall</li> </ul> 	<ul style="list-style-type: none"> <li>-Ensure When Wiping Down Cleaning Solution Bag Is Tied At Both Ends And Placed In A Secondary Containment Device Such As A Bucket Or Pail. Label The Bucket.</li> <li>- Wear Gloves and Goggles When Handling Cleaning Solution And Materials.</li> <li>- Wear Protective Gloves</li> <li>- Wear Protective Outer Clothing (i.e. Tyvek Suit).</li> <li>-Wipe Down Any Excess Materials And Discard Into Collection Bag.</li> <li>- Place All Discarded Materials In Sealed Bag And Label Bag.</li> </ul>

